

IMAGE PROCESSING APPARATUS AND METHOD OF SAME

ABSTRACT OF THE DISCLOSURE

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An image processing apparatus for finding
reflectivity based on a BRDF model expressing a ratio of
reflection of light incident upon one point of a surface
of an object to be drawn at the object surface, the image
10 processing apparatus having an operation unit for
calculating the reflectivity based on a BRDF model
calculated by a quadratic-form matrix expression
including a vector comprised of a light source direction
vector, a viewpoint direction vector, and a normal
15 direction vector and a matrix determining the
characteristics of the BRDF model, thereby able to
achieve both a variety of expression power and good
operation efficiency when mounted in a programmable pixel
shader and further having enough of a compactness to
20 easily cope with a shift-variant BRDF, and a method of
the same.